Amendments to the Drawing Figures

Please replace FIGS. 1A and 1B with the attached replacement figures which now incorporate the following text. "Legend: STP = spanning tree protocol".

Remarks

Claims 1-16 remain in the application. Claims 1, 2, 5, 6, 10, 11, 12, 14, 15, and 16 are hereby amended. No new matter is being added.

Drawings

The drawings were objected to because FIGS. 1A and 1B lack descriptive legends for the acronym STP. FIGS. 1A and 1B are hereby amended to incorporate the following text. "Legend: STP = spanning tree protocol". Therefore, applicants respectfully submit that this objection is now overcome.

Specification

The disclosure was objected to because of various informalities in the Abstract and on pages 2 and 3. The disclosure is hereby amended in accordance with the Examiner's recommendations to correct these informalities. Hence, applicants respectfully submit that this objection is now overcome.

Claim Objections

Claims 1, 10-12 and 14-16 were objected to because of various informalities. These claims are hereby amended in accordance with the Examiner's recommendations to correct these informalities. Hence, applicants respectfully submit that this objection is now overcome.

Claim Rejections -- 35 USC 112

Original claims 2 and 5-6 were rejected under 35 USC 112, second paragraph, as being indefinite because of their reciting "the address table" rather than --the MAC address table--. Applicants have amended claims 2 and 5-6 in accordance with the Examiner's recommendation. Hence, applicants respectfully submit that this rejection is now overcome.

Claim Rejections -- 35 USC 102 and 103

Original claims 1-4, 7, 8-9, and 10-16 were rejected under 35 USC 102 and/or 103 as being anticipated by and/or unpatentable over Bare (US 2003/0016624 A1). Claim 5 was rejected under 35 USC 103 as being unpatentable over Bare in view of Eisen et al. Claim 6 was rejected under 35 USC 103 as being unpatentable over Bare in view of Tanoue. Applicants respectfully traverse these rejections in relation to the claims as hereby amended.

Amended claim 1 now recites as follows.

1. A method of fault recovery by a switch in a local area network, the method comprising:

detecting a link failure at a port of the switch; and

clearing all medium access control (MAC) address entries from a MAC address table of the switch in response to the link failure detection.

(Insertions indicated by underline.)

As seen above, amended claim 1 now clarifies that the step of clearing a MAC address table of the switch involves **clearing all MAC address entries from the MAC address table**. Applicants respectfully submit that this limitation is neither taught nor suggested by any of the cited references.

Regarding Bare, the cited portion of Bare in relation to clearing the MAC address table consists of paragraphs 32-34 of Bare. These paragraphs are reproduced below for convenience of reference.

[0032] In particular, the present invention includes methods and structures for rapidly identifying an alternate path to be used by a switch for forwarding of traffic after failure of a preferred path. When a port or link attached to a port fails, a switch operable in accordance with the present identifies an alternative path by exchange of information among the switches operable in accordance with the

present invention.

[0033] More specifically, the switch which senses the failure first inspects it's addressing tables to determine whether any MAC addresses are known to utilize the failed port for forwarding of information. In other words, was the failed port used to forward packets to any known MAC addresses. If no such destination MAC addresses are known to use the port, no further processing is necessary. If, however, a number of destination MAC addresses are known to require the failed port for forwarding of packets, the switch must determine what, if any, other paths are available for reaching the destination MAC addresses in question. **If no alternate paths are known to the switch, the switch simply removes the destination MAC address from its addressing tables making the port unavailable for forwarding packets to the destination MAC address.**

[0034] If other paths using other ports of the switch are found by inspecting the addressing tables of the switch, one such alternate port is selected and packets are exchanged with other switches via that port. The packets identify the MAC address(es) for which an alternate path is required. The packet exchange determines whether the selected port, in fact, provides an operating alternate path to the identified MAC address(es). Acknowledgments in the packet exchange indicate whether the identified MAC address(es) can be successfully reached via the selected port. When the acknowledgment messages indicate that the selected port cannot reach the identified MAC address(es), the switch looks for another port which may provide an alternate path. **If no such port is identified as capable of providing an alternate path to the identified MAC address(es), the unreachable MAC addresses are simply removed from the addressing tables as indicated above.** If an alternate path is located, the addressing tables are updated to reflect the use of a new path and associated port for forwarding of packets to the identified MAC address(es).

(Emphasis added.)

As shown above, **the citation to Bare merely teaches removing from the MAC address table only those specific MAC address or addresses which are determined to be unreachable**. Those MAC addresses are unreachable because of a port failure and lack of any alternate path.

In contrast to Bare, the claimed invention requires **clearing all MAC address entries from the MAC address table**. This removes all MAC addresses, including those which are valid and reachable.

One would conventionally think that removing valid and reachable MAC addresses would be an inefficient thing to do. However, applicants have determined the **surprising result** that doing so actually promotes (rather than impedes) rapid fault recovery in their ring network topologies.

Therefore, applicants respectfully submit that claim 1, as hereby amended, now overcomes these rejections for at least the above-discussed reasons.

Claims 2-9 depend from claim 1. Hence, applicants respectfully submit that these claims now also overcome these rejections for at least the same reasons discussed above in relation to claim 1.

Claim 10 is amended with similar limitations as claim 1. Hence, applicants respectfully submit that claim 10 now overcomes these rejections for at least the same reasons discussed above in relation to claim 1.

Claims 11-13 depend from claim 10. Hence, applicants respectfully submit that these claims now also overcome these rejections for at least the same reasons discussed above in relation to claim 10.

Claim 14 is also amended with similar limitations as claim 1. Hence, applicants respectfully submit that claim 14 now overcomes these rejections for at least the same reasons discussed above in relation to claim 1.

Claims 15-16 depend from claim 14. Hence, applicants respectfully submit that these claims now also overcome these rejections for at least the same reasons discussed above in relation to claim 14.

Conclusion

For the above-discussed reasons, applicants respectfully submit that the application, as hereby amended, now overcomes all the objections and rejections from the office action. Favorable action is respectfully solicited.

If for any reason an insufficient fee has been paid, the Commissioner is hereby authorized to charge the insufficiency to Deposit Account No. 50-2427 of Okamoto & Benedicto LLP.

Respectfully Submitted,

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James K. Okamoto, Reg. No. 40,110
Okamoto & Benedicto LLP
P.O.Box 641330
San Jose, CA 95164-1330
Tel: (408) 436-2111
Fax: (408) 436-2114

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